Please amend claims 110-114 and 117 as follows:

the. (Twice amended) A substrate with a surface comprising 10³ or more groups of oligonucleotides with different, known sequences covalently attached to the surface in [predefined] known regions, said 10³ or more groups of oligonucleotides occupying a total area of less than 1 cm² on said substrate, said groups of oligonucleotides having different nucleotide sequences.

(Twice amended) The substrate as recited in claim 110 wherein said substrate comprises 104 or more different groups of oligonucleotide with known sequences covalently coupled to [predefined] known regions of said substrate.

(Twice amended) The substrate as recited in claim Tro wherein said substrate comprises 10⁵ or more different groups of oligonucleotides with known sequences in [predefined] known regions.

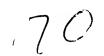
"\" 113. (Twice amended) The substrate as recited in claim 119 wherein said substrate comprises 10⁶ or more different groups of oligonucleotides with known sequences in [predefined] known regions.

114. (Twice amended) The substrate as recited in claim 116 wherein said groups of oligonucleotides are at least 50% pure within said [predefined] known regions.

Alta. (Amended) An array of more than [500] 1,000 different groups of oligonucleotide molecules with known sequences covalently coupled to a surface of a substrate, said groups of oligonucleotide molecules each in [predefined] known regions and differing from other groups of oligonucleotide

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